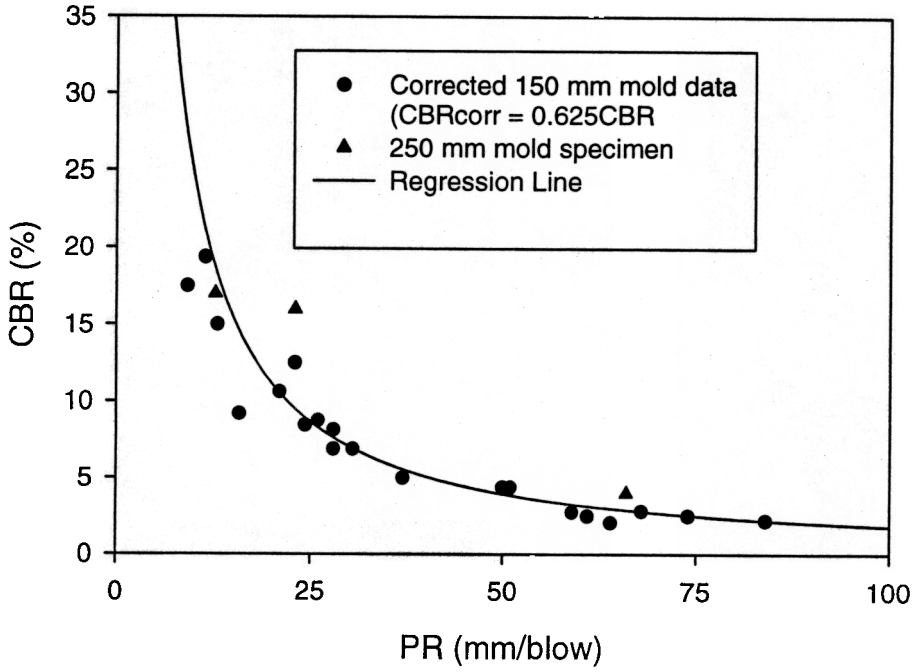

Figure 5.2 Corrected laboratory data with data from the 250 mm (10 in) mold

The 250 mm (10 in) mold data were not corrected for confinement. A log–log regression analysis was performed on all of the data and the most proper log-log equation to fit the data range was developed as:

$$\text{Log(CBR)} = 2.53 - 1.14\ \text{Log(DCP)} \qquad (3)$$

Figure 5.3 shows the fit of equation (3) to the corrected laboratory data in conjunction with other correlations reported in literature. Note that results from equation (3) are nearly identical to Smith and Pratts' model, which was based upon field data.

5.3 PR-Moisture Correlation

Liquidity index (LI) is often used to normalize undrained shear strength for clays (Lambe and Whitman,1969). Figure 5.4 shows the PR values for the three soil types versus liquidity index (LI) as measured in the laboratory. In this case, as LI increased from –0.7 to 0.2,